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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,617	10/24/2003	Lung T. Tran	100111370-7	8792

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

AUDUONG, GENE NGHIA

ART UNIT PAPER NUMBER

2818

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,617

Applicant(s)

TRAN, LUNG T.

Examiner

Gene N Auduong

Art Unit

2818

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Specification

1. Applicant is reminded of the following requirement:

In a continuation or divisional application (other than a continued prosecution application filed under 37 CFR 1.53(d)), the first sentence of the specification or application data sheet (37 CFR 1.76) should include a reference to the prior application(s) from which benefit of priority is claimed. See 37 CFR 1.78. The following format is suggested: "This is a continuation (or divisional) of Application No. _____, filed _____, now (abandoned, pending or U.S. Patent No. _____)."

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kleveland et al. (U.S. Pat. No. 6,631,085).

Regarding claim 12, Kleveland et al. disclose a process of making a data storage device, comprising; forming a plurality of word lines (figure 2 and figure 12; word lines W), forming a plurality of bit lines (figure 2 and figure 12; bitlines B); and forming a first array plane of [resistive cross point] memory cells, each memory cell coupled to a respective bit line and coupled to a respective word line (see figure 12 and 2); forming a second array plane of [resistive

cross point] memory cells, each memory cell coupled to a respective bit line and a respective word line, wherein one cell from the first array plane and one cell from the second array plane share a common bit line and word line (in the present invention, the memory used is diode-like structure, however, the memory element can be a fuse, an antifuse, a capacitor, a resistive element, etc.; col. 4, lines 24+. Inherently, the diode-like structure can be replaced with resistive elements); biasing the array so that a current flows from the common word line through the cell from the first array to the common bit line; blocking the current from flowing through the cell from the second array during the biasing of the array (col. 4, lines 52+).

Regarding claim 13, Kleveland et al. disclose the process of claim 12 comprising during the read process forming a unidirectional conductive path from the word line to the bit line through the memory cell (col. 4, lines 52+).

Regarding claim 14, Kleveland et al. disclose the process of claim 12, further comprising forming multiple read circuits each coupled to one or more memory cells by a respective bit line and operable to sense current flow through any memory cell coupled thereto (col. 14, lines 28+).

Regarding claims 15-16, Kleveland et al. disclose the process of claim 14, wherein each read circuit comprises a sense amplifier, wherein the sense amplifier is operable to compare current flowing through a selected memory cell with a reference current to produce resistance state of the memory cell (col. 14, lines 57+).

Regarding claims 17-18, Kleveland et al. disclose the process of claim 13, further comprising forming an equipotential generator coupled to the word lines and operable to set voltage levels in the resistive cross point memory cell array to substantially prevent or divert selected parasitic currents from interfering with the sense current from memory cells, wherein

Art Unit: 2818

the equipotential generator is operable to set an input node of the common isolation diode of each group of memory cells from feedback from unselected word lines representing a common array voltage (col. 13, lines 35+).


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N Auduong whose telephone number is (571) 272-1773.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA
May 04, 2004


Gene N Auduong
Primary Examiner
Art Unit 2818